

## Patent Assignment Abstract of Title

**Total Assignments: 1****Application #:** 09479432 **Filing Dt:** 01/07/2000**Patent #:** NONE**Issue Dt:****PCT #:** NONE**Publication #:** NONE**Pub Dt:****Inventors:** Charles R. Musick, Terence Critchlow, Madhavan Ganesh, Tom Slezak, Krzysztof Fidelis**Title:** System and Method for Integrating and Accessing Multiple Data Sources Within a Data Warehouse Architecture**Assignment: 1**

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 graphical models

Karl Hahn , Carsten Sapia , Markus Blaschka

Proceedings of the third ACM international workshop on Data  
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 Ron Musick , Chris Miller

ACM SIGMOD Record March 1998

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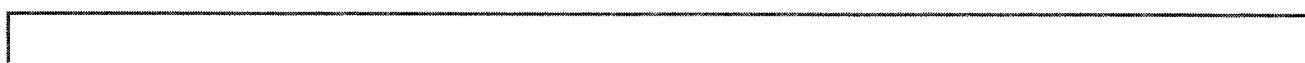
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**1** [An overview and classification of mediated query systems](#) 82%

Ruxandra Domenig , Klaus R. Dittrich  
ACM SIGMOD Record September 1999  
Volume 28 Issue 3

Multimedia technology, global information infrastructures and other developments allow users to access more and more information sources of various types. However, the "technical" availability alone (by means of networks, WWW, mail systems, databases, etc.) is not sufficient for making meaningful and advanced use of all information available on-line. Therefore, the problem of effectively and efficiently accessing and querying heterogeneous and distributed data sources is an important...

**2** [Maintaining data warehouses over changing information sources](#) 80%

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Communications of the ACM June 2000  
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libraries and information spaces for conducting humanitarian assistance and disaster relief operations in urban environments  
Vished Kumar , Alejandro Bugacov , Murilo Coutinho , Robert Neches

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 Franz Baader , Manfred A. Jeusfeld , Werner Nutt  
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 Richard Hull  
Proceedings of the sixteenth ACM SIGACT-SIGMOD-SIGART symposium on Principles of database systems May 1997

**7** Digital libraries for spatial data: G-Portal: a map-based digital library for distributed geospatial and georeferenced resources 80%  
 Ee-Peng Lim , Dion Hoe-Lian Goh , Zehua Liu , Wee-Keong Ng , Christopher Soo-Guan Khoo , Susan Ellen Higgins  
Proceeding of the second ACM/IEEE-CS joint conference on Digital libraries July 2002  

As the World Wide Web evolves into an immense information network, it is tempting to build new digital library services and expand existing digital library services to make use of web content. In this paper, we present the design and implementation of G-Portal, a web portal that aims to provide digital library services over geospatial and georeferenced content found on the World Wide Web. G-Portal adopts a map-based user interface to visualize and manipulate the distributed geospatial and georef ...

**8** GIS and the internet: A WFS-based mediation system for GIS interoperability 77%  
 Omar Boucelma , Mehdi Essid , Zoé Lacroix  
Proceedings of the tenth ACM international symposium on Advances in geographic information systems November 2002  
The proliferation of spatial data on the Internet is beginning to

allow a much wider access to data currently available in various Geographic Information Systems (GIS). In order to move to a real Web-based community where geographical data can be accessed and exchanged, we need to provide flexible and powerful GIS data integration solutions. Indeed, GIS are highly heterogeneous: not only they differ by their data representations, but they also offer radically different query languages. A GIS med ...

**9** Industrial sessions: beyond relational tables: Garlic: a new flavor of federated query processing for DB2 77%

 Vanja Josifovski , Peter Schwarz , Laura Haas , Eileen Lin  
Proceedings of the 2002 ACM SIGMOD international conference on Management of data June 2002

In a large modern enterprise, information is almost inevitably distributed among several database management systems. Despite considerable attention from the research community, relatively few commercial systems have attempted to address this issue. This paper describes new technology that enables clients of IBM's DB2 Universal Database to access the data and specialized computational capabilities of a wide range of non-relational data sources. This technology, based on the Garlic prototype deve ...

**10** Session 5B: mobile software agents: ACQUIRE: agent-based complex query and information retrieval engine 77%

 Subrata Das , Kurt Shuster , Curt Wu  
Proceedings of the first international joint conference on Autonomous agents and multiagent systems: part 2 July 2002

The heterogeneous, distributive and voluminous nature of many government and corporate data sources impose severe constraints on meeting the diverse requirements of users who analyze the data. Additionally, communication bandwidth limitations, time constraints, and multiplicity of data formats impose further restrictions on users of these distributed data sources. What is required is a reliable, robust, and efficient data retrieval technique that can access data from distributed data sources whi ...

**11** SchemaSQL: An extension to SQL for multidatabase interoperability 77%

 Laks V. S. Lakshmanan , Fereidoon Sadri , Subbu N. Subramanian  
ACM Transactions on Database Systems (TODS) December 2001  
Volume 26 Issue 4

We provide a principled extension of SQL, called *SchemaSQL*, that offers the capability of uniform manipulation of data and schema in relational multidatabase systems. We develop a precise syntax

and semantics of *SchemaSQL* in a manner that extends traditional SQL syntax and semantics, and demonstrate the following. (1) *SchemaSQL* retains the flavor of SQL while supporting querying of both data and schema. (2) It can be used to transform data in a database in a structure substa ...

**12** SI in digital libraries

77%

 Nabil R. Adam , Vijayalakshmi Atluri , Igg Adiwijaya

Communications of the ACM June 2000

Volume 43 Issue 6

**13** Information integration with attribution support for corporate

77%

 profiles

Thomas Lee , Melanie Chams , Robert Nado , Michael Siegel , Stuart Madnick

Proceedings of the eighth international conference on Information and knowledge management November 1999

The proliferation of electronically available data within large organizations as well as publicly available data (e.g. over the World Wide Web) poses challenges for users who wish to efficiently interact with and integrate multiple heterogeneous sources. This paper presents CI3, a corporate information integrator, which applies XML as a tool to facilitate data mediation and integration amongst heterogeneous sources in the context of financial analysts creating corporate ...

**14** NSF workshop on industrial/academic cooperation in database

77%

 systems

Mike Carey , Len Seligman

ACM SIGMOD Record March 1999

Volume 28 Issue 1

**15** The WHIPS prototype for data warehouse creation and

77%

 maintenance

Wilbert J. Labio , Yue Zhuge , Janet L. Wiener , Himanshu Gupta , Héctor García-Molina , Jennifer Widom

ACM SIGMOD Record , Proceedings of the 1997 ACM SIGMOD international conference on Management of data June 1997

Volume 26 Issue 2

A data warehouse is a repository of integrated information from distributed, autonomous, and possibly heterogeneous, sources. In effect, the warehouse stores one or more materialized views of the source data. The data is then readily available to user applications for querying and analysis. Figure 1 shows the basic

architecture of a warehouse: data is collected from each source, integrated with data from other sources, and stored at the warehouse. Users then access the data directly from th ...

**16 A toolkit for negotiation support interfaces to multi-dimensional data 77%**

Michael Gebhardt , Matthias Jarke , Stephan Jacobs

ACM SIGMOD Record , Proceedings of the 1997 ACM SIGMOD international conference on Management of data June 1997

Volume 26 Issue 2

CoDecide is an experimental user interface toolkit that offers an extension to spreadsheet concepts specifically geared towards support for cooperative analysis of the kinds of multi-dimensional data encountered in data warehousing. It is distinguished from previous proposals by direct support for drill-down/roll-up analysis without redesign of an interface; more importantly, CoDecide can link multiple views on a data cube for synchronous or asynchronous cooperation by multiple ana ...

**17 An overview of data warehousing and OLAP technology 77%**

Surajit Chaudhuri , Umeshwar Dayal

ACM SIGMOD Record March 1997

Volume 26 Issue 1

**18 Research problems in data warehousing 77%**

Jennifer Widom

Proceedings of the fourth international conference on Information and knowledge management December 1995

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Designing data warehouses with OO conceptual models

Trujillo, J. Palomar, M. Gomez, J. Il-Yeol Song

Alicante Univ., Spain

*This paper appears in:* Computer

On page(s): 66 - 75

Dec. 2001

Volume: 34 Issue: 12

ISSN: 0018-9162

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## Abstract:

The authors propose an approach that provides a theoretical foundation for the object-oriented databases and object-relational databases in data warehouse, multidimensional database, and online analytical processing applications. This introduces a set of minimal constraints and extensions to the Unified Modeling Language for representing multidimensional modeling properties for these applications. Multidimensional modeling offers two benefits. First, the model closely parallels what data analyzers think and, therefore, helps users understand data. Second, multidimensional modeling helps predict what final users want to do, thereby improving performance. The authors are using their approach to create an implementation of a multidimensional model. They plan to integrate commercial online-analytical-processing tool facilities within their GOLD model case tool as a task that involves data warehouse prototyping and sample data generation.

## Index Terms:

data warehouses object-oriented databases data mining specification language warehouse design object-oriented conceptual models object-oriented databases object-relational databases multidimensional database online analytical processing Unified Modeling Language multidimensional modeling GOLD model case tool data generation

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